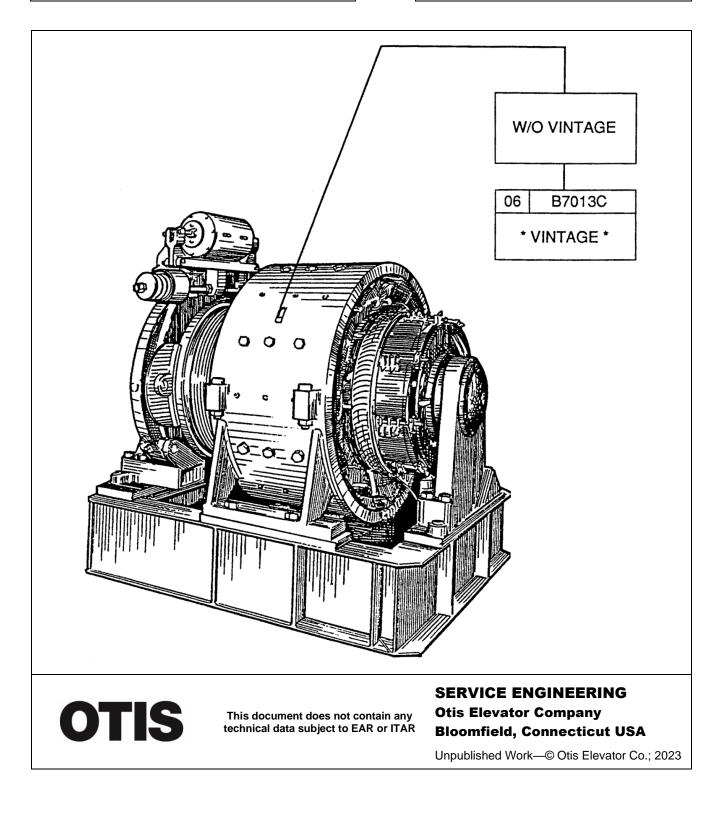
## **269HT Machine**

#### **Spare Parts Leaflet**

06-B7013C

June 21, 2023 / Page 1 of 17



### **Leaflet Description**

This leaflet provides spare parts information for 269HT type machines.

#### **Leaflet Revisions**

Date Revised	SME	Reason for Revision
May 1994	Val Sheynkman	New SPL
February 24, 2016	Gary Mendrala	Updated parts list on p. 10; Updated document template
May 25, 2016	Gary Mendrala	Added flat identity for drive sheaves
August 31, 2016	Gary Mendrala	Added deflector and secondary sheave assemblies
May 24, 2017	Gary Mendrala	Updated Related Documents list on history page
October 10, 2018	Gary Mendrala	Added brake switch kit information
July 1, 2020	Gary Mendrala	Added p/ns 346ACX2 and 376EE2 to p. 12
January 20, 2021	Gary Mendrala	Added brake arm p/n A286H4 p. 12
June 23, 2021	Gary Mendrala	Added p/n 335H29 on p. 13
May 24, 2023	Gary Mendrala	Updated reference numbers on p. 13
June 21, 2023	Gary Mendrala	Added p/n AAA251CD12 on p. 9

#### **Related Drawings**

Drawing No.	Title	Drawing No.	Title
B7013C	269HT	D6939E	269HT Secondary Sheave Assembly
6939F	269HT Deflector		

#### **Related Documents**

Document ID	Title
SPL 06-AAA21430E	Encoders for Gearless Mod Machines
TIP 6.1.0-16	Correcting Clamp Noise (Clunking) on 219HT and 269HT Machines
TIP 6.1.0-4	72, 219HT, and 269HT Machine Noise When Running Full Speed
TIP 6.0-16	Machine Brake Installation Kit
TIP 6.0-1	Replacement of Brake Linings

#### **Subject Matter Expert**

Name	Department
Gary Mendrala	OSC Service Engineering

#### **About Spare Parts Leaflets...**

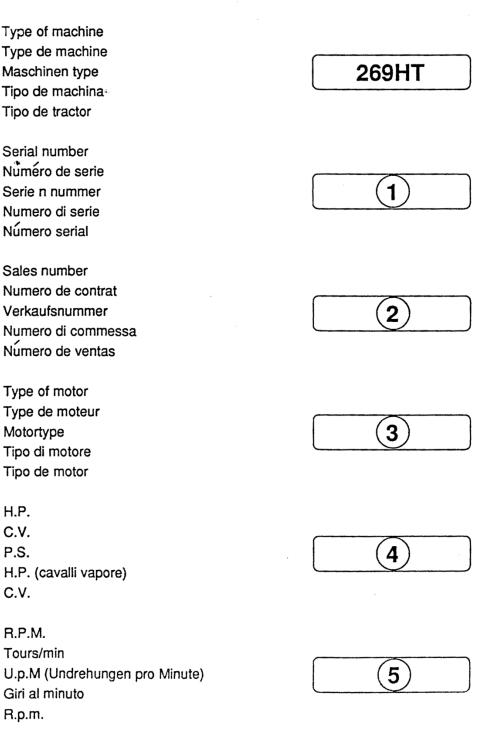
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing. While goal of this document is to make parts identification as easy as possible, the document cannot be all-inclusive. Elevator and escalator contracts classified as "special" or "custom" are not addressed here. For such contracts, please refer to specified information, the contract folder, TIPs, Field Education Articles, Construction Letters, etc. for further information. If you have any suggestions about this document, please contact the subject matter expert listed on this page.

Page 2 June 21, 2023

### **History**

#### 06-B7013C

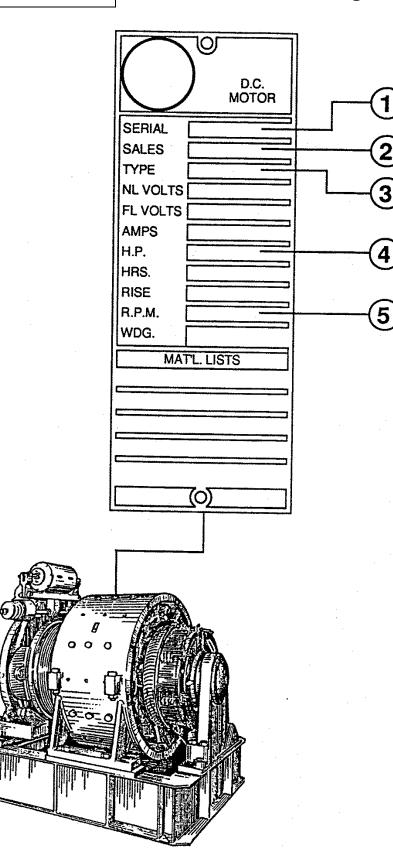
To order a machine provide the following information Renseignernents à fournir pour commander une machine Für die Bestellung einer maschine. Werden folgende Anagaben benotigt Per ordinate una macchina formire le seguenti informazioni El pecido de un tractor debe incluir la siguiente información



June 21, 2023 Page 3

06-B7013C

## History



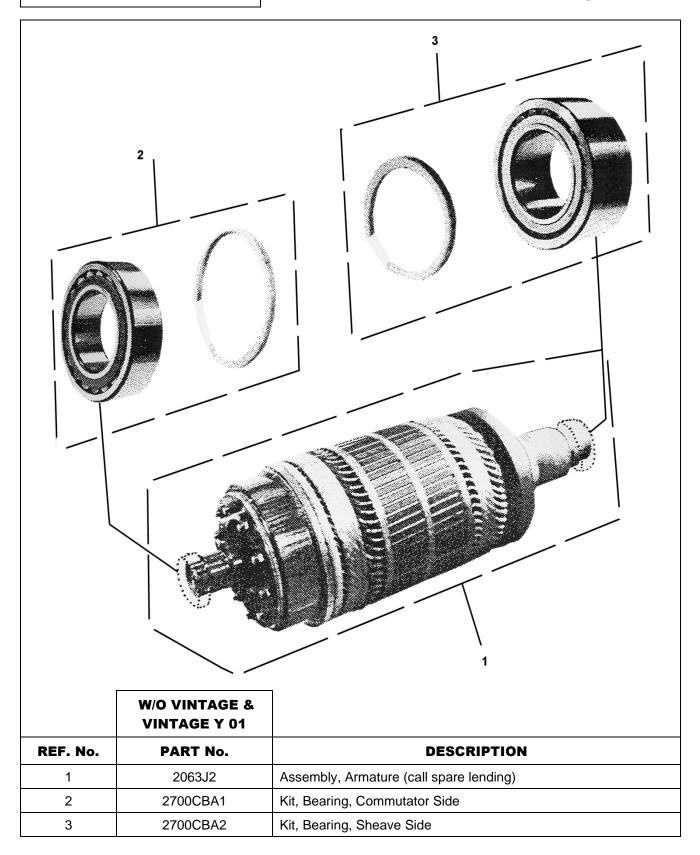
June 21, 2023

## **Field Coils**

### 06-B7013C

	W/O VINTAGE &	
REF. No.	W/O VINTAGE & VINTAGE Y 01 PART No.	
<b>REF. No.</b>	VINTAGE Y 01	4 DESCRIPTION
1	VINTAGE Y 01 PART No. 221BV1	4 DESCRIPTION Field Coils, Set of 8 ORDER
	VINTAGE Y 01 PART No.	4 DESCRIPTION Field Coils, Set of 8

This document does not contain any technical data subject to EAR or ITAR Unpublished Work—Otis Elevator Co., 2023



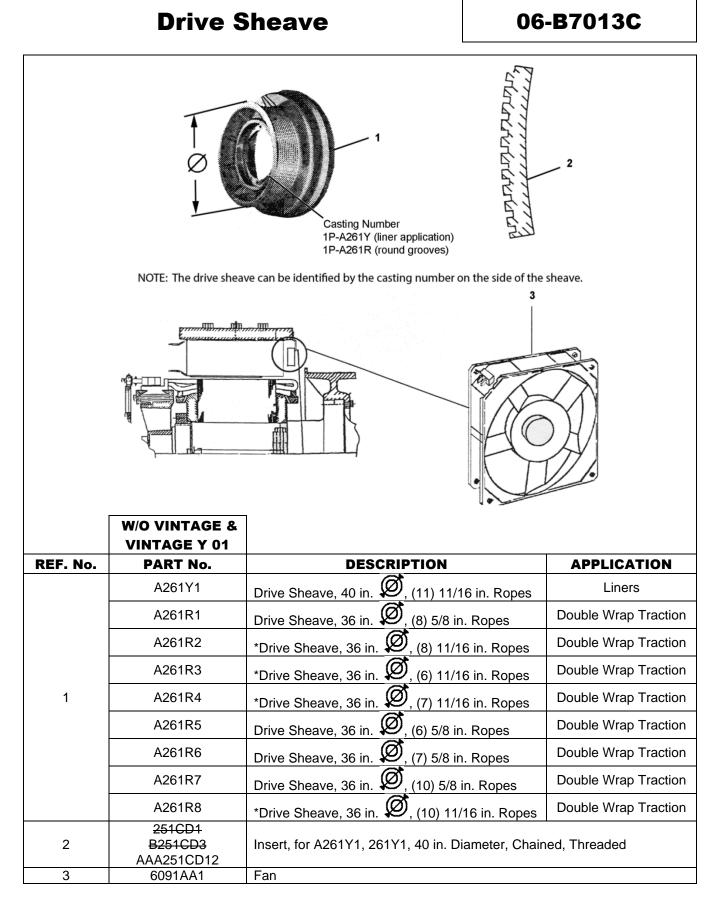
## **Brush Holders and Parts**

06-B7013C

6		
2 -	WO VINTAGE &	
	VINTAGE Y 01	
REF. No.	PART No.	DESCRIPTION
1	6134H1 6134H2	Assembly, Brush Holder, Ø 0.877 in. Assembly, Brush Holder, Ø 0.902 in.
2	172JP2	Assembly, Brush Ring
3	240T1 240T5 240T9 AAA240AR201	Brush
4	474H10	Brush Stem
5	298DF129	Insulator, (for 6134H2 brush holder)
6	2700CAR19	Kit, Includes: (1) Spring p/n 92A4, (1) Arm p/n 288CD4, (1) Washer p/n 128AF12, and (1) Cotter Pin 1/16 x 1/2

06-	B7013C	Drive Sheav	/e
		Casting Number 1P-261Y (liner application of the sheave can be identified by the casting number he sheave.	es)
REF. No.	W/O VINTAGE PART No.	DESCRIPTION	APPLICATION
	261Y1	Drive Sheave, 40 in. , (11) 11/16 in. Ropes	Liners
	261R1	Drive Sheave, 36 in. (8) 5/8 in. Ropes	Double Wrap Traction
	261R2	*Drive Sheave, 36 in. , (8) 11/16 in. Ropes	Double Wrap Traction
1	261R3	*Drive Sheave, 36 in. , (6) 11/16 in. Ropes	Double Wrap Traction
	261R4	*Drive Sheave, 36 in. , (7) 11/16 in. Ropes	Double Wrap Traction
	261R5	Drive Sheave, 36 in. Ø, (6) 5/8 in. Ropes	Double Wrap Traction
	261R6	Drive Sheave, 36 in. Ø, (7) 5/8 in. Ropes	Double Wrap Traction

\* For arrangements 261R2, R3, and R4, provide rope-to-rope centerline dimensions.



\* For arrangements A261R2, R3, R4, and R8, provide rope-to-rope centerline dimensions.

06-B7013C

# **Deflector Sheave (SWT)**

	6939F VINTAGE Y 01	
REF. No.	PART No.	DESCRIPTION
1	377DF1	1/4-18 NPT, Pipe Plug
2	209J7	Bearing
3	346SS2	Cover
4	0001/114	Plate, Retaining
5	386VH1	Trate, retaining
0	386VH1 495DK1	Shaft
6		
7	495DK1	Shaft

\* Provide rope-to-rope centerline dimension when ordering sheave.

# **Secondary Sheave (DWT)**

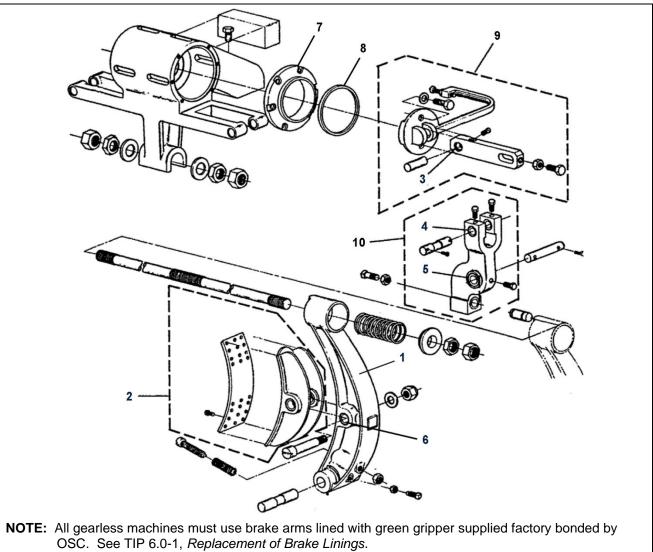
#### 06-B7013C

		7 3		
	D6939E	7 3		
REF. No.	D6939E PART No.	7 3 DESCRIPTION		
<b>REF. No.</b>	PART No.	DESCRIPTION		
		DESCRIPTION Bearing		
1	<b>PART No.</b> 209B25	DESCRIPTION		
1 2	<b>PART No.</b> 209B25 346ACR1	DESCRIPTION Bearing Cover, Deep		
1 2 3	PART No. 209B25 346ACR1 346ACP1	DESCRIPTION Bearing Cover, Deep Cover, Shallow		
1 2 3 4	PART No. 209B25 346ACR1 346ACP1 376J40	DESCRIPTION Bearing Cover, Deep Cover, Shallow Gasket		
1 2 3 4 5 6 7	PART No. 209B25 346ACR1 346ACP1 376J40 72BV19 386WL1 377DF3	DESCRIPTION         Bearing         Cover, Deep         Cover, Shallow         Gasket         Nut         Plate, Lock         Plug, NPT Pipe 1/2-14		
1 2 3 4 5 6	PART No. 209B25 346ACR1 346ACP1 376J40 72BV19 386WL1	DESCRIPTION         Bearing         Cover, Deep         Cover, Shallow         Gasket         Nut         Plate, Lock         Plug, NPT Pipe 1/2-14         Seals		
1 2 3 4 5 6 7	PART No. 209B25 346ACR1 346ACP1 376J40 72BV19 386WL1 377DF3 33D31 A262R4	DESCRIPTION         Bearing         Cover, Deep         Cover, Shallow         Gasket         Nut         Plate, Lock         Plug, NPT Pipe 1/2-14         Seals         Secondary Sheave, 36 in.		
1 2 3 4 5 6 7	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R3	DESCRIPTION         Bearing       Cover, Deep         Cover, Deep       Cover, Shallow         Gasket       Nut         Plate, Lock       Plug, NPT Pipe 1/2-14         Seals       Secondary Sheave, 36 in.         Secondary Sheave, 36 in.       (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (6) 11/16 in. Ropes		
1 2 3 4 5 6 7	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R5	DESCRIPTION         Bearing       Cover, Deep         Cover, Shallow       Gasket         Nut       Plate, Lock         Plug, NPT Pipe 1/2-14       Seals         Secondary Sheave, 36 in.       (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (6) 11/16 in. Ropes         Secondary Sheave, 36 in.       (7) 5/8 in. Ropes		
1 2 3 4 5 6 7 8	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R3	DESCRIPTION         Bearing       Cover, Deep         Cover, Shallow       Gasket         Nut       Plate, Lock         Plug, NPT Pipe 1/2-14       Seals         Secondary Sheave, 36 in.       (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (6) 11/16 in. Ropes         Secondary Sheave, 36 in.       (7) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (7) 11/16 in. Ropes		
1 2 3 4 5 6 7 8	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R5           A262R2	DESCRIPTION         Bearing       Cover, Deep         Cover, Deep       Cover, Shallow         Gasket       Nut         Plate, Lock       Plug, NPT Pipe 1/2-14         Seals       Secondary Sheave, 36 in.         Secondary Sheave, 36 in.       (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (7) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (7) 11/16 in. Ropes         *Secondary Sheave, 36 in.       (8) 5/8 in. Ropes		
1 2 3 4 5 6 7 8 8	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R5           A262R2           A262R6	DESCRIPTION         Bearing       Cover, Deep         Cover, Shallow       Gasket         Nut       Plate, Lock         Plug, NPT Pipe 1/2-14       Seals         Secondary Sheave, 36 in.       (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (6) 11/16 in. Ropes         Secondary Sheave, 36 in.       (7) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (7) 11/16 in. Ropes		
1 2 3 4 5 6 7 8	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R5           A262R2           A262R6           A262R1	DESCRIPTION         Bearing         Cover, Deep         Cover, Shallow         Gasket         Nut         Plate, Lock         Plug, NPT Pipe 1/2-14         Seals         Secondary Sheave, 36 in.         (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.         (6) 11/16 in. Ropes         *Secondary Sheave, 36 in.         (7) 5/8 in. Ropes         *Secondary Sheave, 36 in.         (7) 11/16 in. Ropes         *Secondary Sheave, 36 in.         (8) 5/8 in. Ropes         *Secondary Sheave, 36 in.         (8) 5/8 in. Ropes         *Secondary Sheave, 36 in.         (8) 5/8 in. Ropes         *Secondary Sheave, 36 in.         (8) 11/16 in. Ropes		
1 2 3 4 5 6 7 8 8	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R3           A262R5           A262R6           A262R1           495BT2	DESCRIPTION         Bearing       Cover, Deep         Cover, Shallow       Gasket         Nut       Plate, Lock         Plug, NPT Pipe 1/2-14       Seals         Secondary Sheave, 36 in.       (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (6) 11/16 in. Ropes         *Secondary Sheave, 36 in.       (7) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (7) 11/16 in. Ropes         *Secondary Sheave, 36 in.       (8) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (8) 11/16 in. Ropes         *Secondary Sheave, 36 in.       (8) 11/16 in. Ropes		
1 2 3 4 5 6 7 8 8	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R3           A262R5           A262R6           A262R1           495BT2	DESCRIPTION         Bearing       Cover, Deep         Cover, Shallow       Gasket         Nut       Plate, Lock         Plug, NPT Pipe 1/2-14       Seals         Secondary Sheave, 36 in.       (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (6) 11/16 in. Ropes         Secondary Sheave, 36 in.       (7) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (7) 11/16 in. Ropes         *Secondary Sheave, 36 in.       (8) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (8) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (8) 11/16 in. Ropes         Secondary Sheave, 36 in.       (8) 11/16 in. Ropes         Shaft, L = 26.75 in.       (8) 11/16 in. Ropes         Shaft, L = 24.50 in.       (8) 11/16 in. Ropes		
1 2 3 4 5 6 7 8 8	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R5           A262R5           A262R6           A262R1           495BT2           255BB73	DESCRIPTIONBearingCover, DeepCover, ShallowGasketNutPlate, LockPlug, NPT Pipe 1/2-14SealsSecondary Sheave, 36 in.Secondary Sheave, 36 in.(6) 5/8 in. Ropes*Secondary Sheave, 36 in.(7) 5/8 in. Ropes*Secondary Sheave, 36 in.(7) 5/8 in. Ropes*Secondary Sheave, 36 in.(7) 11/16 in. RopesSecondary Sheave, 36 in.(8) 5/8 in. Ropes*Secondary Sheave, 36 in.(8) 5/8 in. RopesShaft, L = 26.75 in.Shaft, L = 24.50 in.Shim, 0.030 in. Thick		
1 2 3 4 5 6 7 8 8 9 9	PART No.           209B25           346ACR1           346ACP1           376J40           72BV19           386WL1           377DF3           33D31           A262R4           A262R5           A262R6           A262R1           495BT2           255BB73           255BB74	DESCRIPTION         Bearing       Cover, Deep         Cover, Shallow       Gasket         Nut       Plate, Lock         Plug, NPT Pipe 1/2-14       Seals         Secondary Sheave, 36 in.       (6) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (7) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (7) 11/16 in. Ropes         *Secondary Sheave, 36 in.       (8) 5/8 in. Ropes         *Secondary Sheave, 36 in.       (8) 11/16 in. Ropes         Shaft, L = 26.75 in.       Shaft, L = 24.50 in.         Shim, 0.060 in Thick       Shim, 0.060 in Thick		

\* Provide rope-to-rope centerline dimension when ordering sheave.

### 06-B7013C

### **Brake Parts**



	W/O VINTAGE & VINTAGE Y 01	
REF. No.	PART No.	DESCRIPTION
1	A286H4	Arm, Brake
2	B415W3	Assembly, Brake Shoe (Sold as each. Two required. It's more cost effective to reline vs. replace brake shoes. See <b>NOTE</b> .)
3	212W3	Bearing, Inner Linkage Pivot
4	209A13	Bearing, Outer Linkage Pivot
5	209A14	Bearing, Lower Linkage Pivot
6	335E75	Bushing (2 per arm)
7	346ACX2	Cover
8	376EE2	Gasket
9	2700CBA4	Kit, Includes: Lever, Link, Pin, Pipe Plug, and Hardware
10	2700CBA3	Kit, Includes: Lever, Pin, Washer, Cotter, and Pipe Plug

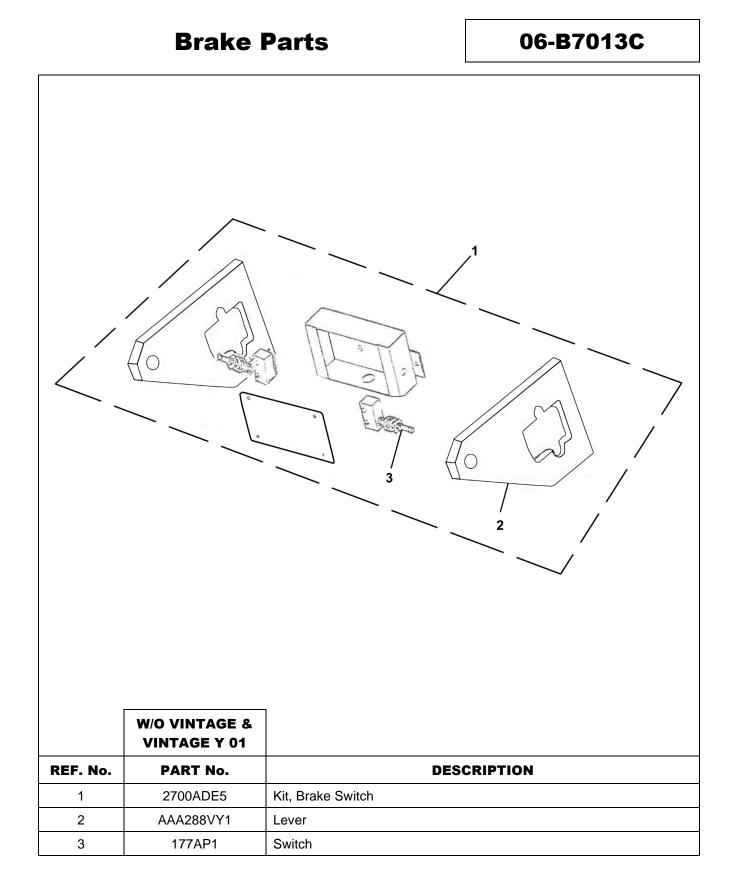
## **Brake Parts**

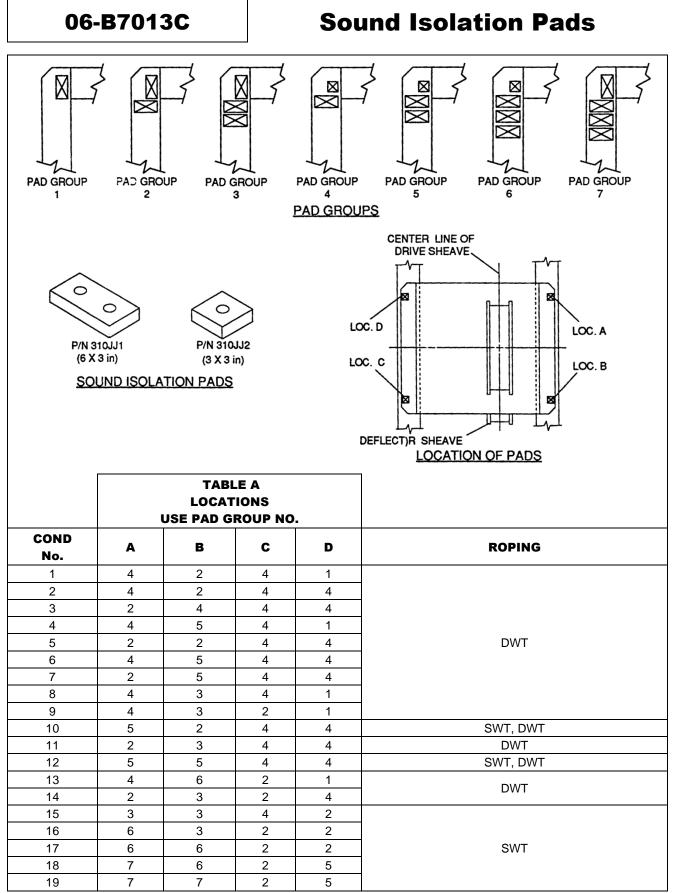
### 06-B7013C

¢ -(		
	12	2 0 0 3 3
[	W/O VINTAGE &	3
		3
REF. No.	W/O VINTAGE & VINTAGE Y 01 PART No.	- <sup>y</sup> 9 DESCRIPTION
1	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1	9 3 DESCRIPTION Bolt
1 2	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3	9 9 DESCRIPTION Bolt Bolt, Pivot
1 2 3	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29	9 <b>DESCRIPTION</b> Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine
1 2 3 4	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16	9 9 DESCRIPTION Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut
1 2 3 4 5	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2	9 <b>DESCRIPTION</b> Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut Pin, Brake Arm
1 2 3 4 5 6	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 82A74	9 9 DESCRIPTION Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut Pin, Brake Arm Pin, Inner Linkage
1 2 3 4 5 6 7	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 82A74 82AH5	9 <b>DESCRIPTION</b> Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut Pin, Brake Arm Pin, Inner Linkage Pin, Outer Linkage
1 2 3 4 5 6 7 8	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 82A74 82AH5 82A75	9 DESCRIPTION Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut Pin, Brake Arm Pin, Inner Linkage Pin, Outer Linkage Pin, Lower Linkage
1 2 3 4 5 6 7	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 82A74 82A74 82AH5 82A75 77GB7	9 DESCRIPTION Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut Pin, Brake Arm Pin, Inner Linkage Pin, Outer Linkage Pin, Lower Linkage Pin, Lower Brake Arm
1 2 3 4 5 6 7 8	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 82A74 82A74 82AH5 82A75 77GB7 A95DB1	9 DESCRIPTION Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut Pin, Brake Arm Pin, Inner Linkage Pin, Outer Linkage Pin, Lower Linkage Pin, Lower Brake Arm Rod, 1-1/2 in. Ø, 6 UNC Thread
1 2 3 4 5 6 7 8 9 9	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 67G16 81BN2 82A74 82A74 82A75 77GB7 A95DB1 95DB1	9 DESCRIPTION Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut Pin, Brake Arm Pin, Inner Linkage Pin, Outer Linkage Pin, Lower Linkage Pin, Lower Brake Arm Rod, 1-1/2 in. , 6 UNC Thread Rod, 1-14 in. , 7 UNC Thread
1 2 3 4 5 6 7 8 9 10 	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 67G16 81BN2 82A74 82A75 77GB7 A95DB1 95DB1 90TD6	g         DESCRIPTION         Bolt         Bolt, Pivot         Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine         Nut         Pin, Brake Arm         Pin, Inner Linkage         Pin, Lower Linkage         Pin, Lower Brake Arm         Rod, 1-1/2 in. Ø, 6 UNC Thread         Rod, 1-14 in. Ø, 7 UNC Thread         Spring, Upper Brake Arm
1 2 3 4 5 6 7 8 9 9	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 82A74 82A74 82A74 82AH5 82A75 77GB7 A95DB1 95DB1 90TD6 90KC2	9 DESCRIPTION Bolt Bolt, Pivot Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine Nut Pin, Brake Arm Pin, Inner Linkage Pin, Outer Linkage Pin, Lower Linkage Pin, Lower Brake Arm Rod, 1-1/2 in. , 6 UNC Thread Rod, 1-14 in. , 7 UNC Thread Spring, Upper Brake Arm
1 2 3 4 5 6 7 8 9 10 	W/O VINTAGE & VINTAGE Y 01 PART No. 59BV1 59BF3 335H29 67G16 81BN2 67G16 81BN2 82A74 82A75 77GB7 A95DB1 95DB1 90TD6	g         DESCRIPTION         Bolt         Bolt, Pivot         Bushing (mounts in bedplate on Ref. 8), 2 per Pin, 4 per Machine         Nut         Pin, Brake Arm         Pin, Inner Linkage         Pin, Lower Linkage         Pin, Lower Brake Arm         Rod, 1-1/2 in. Ø, 6 UNC Thread         Rod, 1-14 in. Ø, 7 UNC Thread         Spring, Upper Brake Arm

	W/O VINTAGE & VINTAGE Y 01	
REF. No.		DESCRIPTION
<b>REF. No.</b>	VINTAGE Y 01	-7
	VINTAGE Y 01 PART No.	DESCRIPTION
1	VINTAGE Y 01           PART No.           6931A1	DESCRIPTION Brake Switch, SPL C-1008
1 2	VINTAGE Y 01           PART No.           6931A1           222FK1	DESCRIPTION Brake Switch, SPL C-1008 Coil







(Continued on next page)

# **Sound Isolation Pads**

#### 06-B7013C

COND. No.	RESULTANT SHEAVE		ROPING
	SHAFT LOAD (LBS.)	(DEGREES)	
1	42,501–47,500	330–348.9	
2		349-352.9	DWT
3	+	353–360	
4	47,501–52,500	330–332.9	
1		330–344.9	
2		345–347.9	
5		348–358.9	
3		359–360	
4	52,501–57,500	330–338.9	
1		339–341.9	
2		342–344.9	
5		345–360	
4	57,501–62,500	330–339.9	
6		340–342.9	
7		343–344.9	
5		345–360	
8	62,501–67,500	330–334.4	
4		334.5-338.4	
6		338.5–340.9	
7		341–349.4	
5		349.5–360	
9	67,501–72,500	330–332.4	
8		332.5–338.4	
7		338.5–353.4	
5		353.5-357.9	
10		358–360	
9	72,501–77,500	330–336.4	
11		336.5–343.4	
7		343.5–354.9	
12		355–357.4	
10		357.5–360	
13	77,501–82,500	330–332.4	
9		332.5–335.9	
14		336–340.4	
11		340.5–347.4	
7		347.5–352.4	
12		352.5–360	
13	82,501–85,000 -	330–335.4	
14		335.5–344.4	
11		344.5–350.4	
12		350.5–360	
10	21,000–27,000	165–180	SWT
12	27,001–33,000		
15	33,001–39,000 39,001–45,000 45,001–51,000 51,001–57,000 57,001–60,000		
16			
17			
18			
19			